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मानक

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Mazdoor Kisan Shakti Sangathan

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Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6218 (2008): Bicycle - Mudguards [TED 16: Bicycles]



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Satyanarayan Gangaram Pitroda

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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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भारतीय मानक  
साईकिल — मडगार्ड — विशिष्टि  
( पहला पुनरीक्षण )

*Indian Standard*  
BICYCLE — MUDGUARDS — SPECIFICATION  
( *First Revision* )

ICS 43.150

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**BUREAU OF INDIAN STANDARDS**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Bicycles Sectional Committee had been approved by the Transport Engineering Division Council.

This standard was first published in 1971. This revision has been taken up to update the referred standards. This standard deals with the requirements for bicycle mudguards and is one of a series of Indian Standards on bicycle and their parts and accessories.

The composition of the Committee responsible for the formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

## BICYCLE — MUDGUARDS — SPECIFICATION

### ( First Revision )

#### 1 SCOPE

This standard specifies the requirements for bicycle front and rear mudguards suitable for popular sizes of bicycles.

#### 2 REFERENCES

The following standards contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
513 : 1994	Cold-rolled low carbon steel sheets and strips — Specification ( <i>fourth revision</i> )
2500 (Part 1) : 2000	Sampling procedures for inspection by attributes: Part 1 Sampling schemes indexed by acceptable quality limit (AQL) for lot-by-lot inspection ( <i>third revision</i> )

#### 3 MATERIALS

The mudguards shall be manufactured from steel strip conforming to IS 513.

#### 4 MANUFACTURE, WORKMANSHIP AND FINISH

4.1 The mudguards shall be not less than 50 mm wide and not less than 18 mm deep and shall be manufactured from steel strip not less than 0.45 mm thickness.

4.2 The mudguards shall be free from manufacturing defects. These shall be thoroughly cleaned so as to be free from rust, scale and oily substances and shall then be chemically phosphate and stove enamelled, spray painted or otherwise finished to give a glossy finish.

4.3 The painted parts shall be free from wrinkles, blisters, unevenness, scratch marks and other injurious defects.

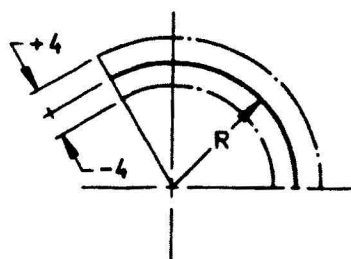
#### 5 TESTS

5.1 A solid steel ball measuring 13 mm in diameter shall be dropped from a height of 1.5 m on any painted portion of the mudguard. The paint at the place where the steel ball strikes the frame shall stand — the impact without showing any sign of crack or peeling off.

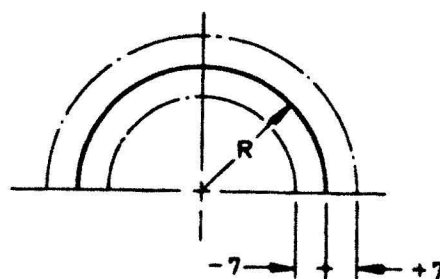
5.2 The mudguard shall be kept dipped for an hour in a 5 percent common salt solution at the temperature specified below. The paint shall not soften, peel off or show any change in colour:

- a) Black enamel paint 80°C, and
- b) Other enamel paints 60°C.

5.3 The warping of the mudguards shall lie within the limits indicated in Fig. 1.



FRONT MUDGUARD



REAR MUDGUARD

All dimensions in millimetres.

FIG. 1 WARPING LIMITS FOR BICYCLE MUDGUARDS

## 6 MARKING

**6.1** The mudguards shall be marked with the manufacturer's name or trade-mark. The year of manufacture shall also be marked, if required by the purchaser.

### 6.2 BIS Certification Marking

The mudguards may also be marked with the Standard Mark.

**6.2.1** The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to the manufacturers or producers may be obtained from the Bureau of Indian Standards.

## 7 SAMPLING

**7.1** Unless otherwise agreed to between the supplier

and the purchaser, the procedure as given in IS 2500 (Part 1) shall be followed for sampling inspection. The inspection level and sampling plan as given in **5.1.1** to **5.1.4** shall be followed.

**7.1.1** The scale of sampling for dimensional and visual characteristics shall be corresponding to the inspection level III as given in Table 1 of IS 2500 (Part 1) and the sampling plan to be followed shall be corresponding to acceptable quality limit (AQL) value of 4 percent given in Table 2 of IS 2500 (Part 1).

**7.1.2** The scale of sampling for the tests given in **5** shall be corresponding to inspection level I given in Table 1 of IS 2500 (Part 1) and the sampling plan to be followed for these tests shall be corresponding to acceptable quality limit (AQL) value of 1.5 percent given in Table 2 of IS 2500 (Part 1).

## ANNEX A

( Foreword )

### COMMITTEE COMPOSITION

Bicycles Sectional Committee, TED 16

<i>Organization</i>	<i>Representative(s)</i>
Bicycle & Sewing Machines (R&D Centre), Ludhiana	SHRI PARAMJEET SINGH ( <i>Chairman</i> ) SHRI R. S. BAINS ( <i>Alternate</i> )
All India Bicycle Manufacturers Association, New Delhi	Ms REENA DAYAL
Atlas Cycles (Haryana) Limited, Sonapat	SHRI VIKRAM KAPUR SHRI GIRISH KAPUR ( <i>Alternate</i> )
Avon Cycles Ltd, Ludhiana	SHRI ONKAR SINGH PAHWA SHRI B. S. DHIMAN ( <i>Alternate</i> )
Avon Ispat & Power Limited (Rim Division), Ludhiana	SHRI HARCHARAN SINGH SHRI ASHWANI KUMAR BHAKHAN ( <i>Alternate</i> )
Bhogal Sons (Regd), Ludhiana	SHRI NAGINDER SINGH BHOGAL SHRI RATINDER SINGH BHOGAL ( <i>Alternate</i> )
Controllarate of Quality Assurance (Vehicles), Ahmednagar	SHRI A. J. PAWAR SHRI V. K. SINHA ( <i>Alternate</i> )
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Director of Industries, Ludhiana, Punjab	GENERAL MANAGER SENIOR TECHNICAL OFFICER ( <i>Alternate</i> )
Directorate General of Supplies and Disposals, New Delhi	SHRI S. M. MUNIAL SHRI P. M. WANJARI ( <i>Alternate</i> )
Directorate of Industries, Government of Haryana, Chandigarh	SHRI R. N. GOYAL SHRI SUNIL CHOPRA ( <i>Alternate</i> )

<i>Organization</i>	<i>Representative(s)</i>
Eastman Industries, Ludhiana	SHRI JAGDEEP SINGH
Govind Rubber Ltd, Distt Ludhiana	SHRI VINOD PODDAR SHRI S. P. SUKHRANI ( <i>Alternate</i> )
Hamilton Industries Pvt Ltd, Ambarnath	SHRI M. SRINIVASAN SHRI P. R. RAVIKUMAR ( <i>Alternate</i> )
Hartex Rubber Ltd. Hyderabad	SHRI K. SUBRAMANIAN SHRI N. MOHAN SUNDARAM ( <i>Alternate</i> )
Hero Cycles Ltd, Ludhiana	SHRI S. K. RAI SHRI Y. N. GUPTA ( <i>Alternate</i> )
J. K. Cycles, Ludhiana	SHRI JOGINDER KUMAR
Kular Cycle Industries, Ludhiana	SHRI AJIT SINGH SHRI DARSHAN SINGH ( <i>Alternate</i> )
Metro Tyres Limited, Ludhiana	SHRI L. K. MATHUR SHRI SANJEEV SOOD ( <i>Alternate</i> )
Nova Bicycle Industries, Ludhiana	SHRI HARMINDER SINGH PAHWA SHRI ROHIT PAHWA ( <i>Alternate</i> )
Office of the Development Commissioner (SSI), New Delhi	SHRI R. L. GARG SHRI M. B. JAYA KUMAR ( <i>Alternate</i> )
Ralson (India) Limited, Ludhiana	SHRI SANJEEV PAHWA SHRI T. R. KUKREJA ( <i>Alternate</i> )
Sadem Industries, Ludhiana	SHRI SATISH KUMAR DHANDA
Seth Industrial Corporation, Ludhiana	SHRI B. K. SETII
T. I. Cycles of India, Chennai	SHRI S. SADISH KUMAR SHRI V. DURAIRAJ ( <i>Alternate</i> )
United Cycle & Parts Manufacturers Association, Ludhiana	PRESIDENT SECRETARY ( <i>Alternate</i> )
BIS Directorate General	SHRI RAKESH KUMAR, Scientist 'F' and Head (TED) [Representing Director General ( <i>Ex-officio</i> )]

*Member Secretary*  
SHRI P. S. MUJRAL  
Scientist 'E' (TED), BIS





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### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

### BUREAU OF INDIAN STANDARDS

#### Headquarters :

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002  
Telephones : 2323 0131, 2323 3375, 2323 9402

Telegrams : Manaksanstha  
(Common to all offices)

#### Regional Offices :

	Telephone
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg NEW DELHI 110002	{ 2323 7617 2323 3841
Eastern : 1/14 C.I.T. Scheme VII M, V. I. P. Road, Kankurgachi KOLKATA 700054	{ 2337 8499, 2337 8561 2337 8626, 2337 9120
Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022	{ 260 3843 260 9285
Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113	{ 2254 1216, 2254 1442 2254 2519, 2254 2315
Western : Manakalaya, E9 MIDC, Marol, Andheri (East) MUMBAI 400093	{ 2832 9295, 2832 7858 2832 7891, 2832 7892

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